

Hiroshima & Nagasaki 60 Years Later

In August 1945, the Japanese cities of Hiroshima and Nagasaki each were completely destroyed by a single nuclear weapon, bringing about the loss of about 200,000 precious lives.

This Exhibit

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The Eastern Oklahoma Pax Christi Community is presenting this exhibit to remind us about of the events of 60 years ago in the hope they are never again repeated, and we can live in a world at peace, free from the fear of all such weapons and violence. These posters show the damage caused by a nuclear weapon. Some of the images are disturbing, but that is the reality of nuclear war.

The posters and videos for this exhibit have been provided free of charge by The Hiroshima Peace Memorial Museum in Japan. The museum was established in 1955 and its mission is, through its atomic bomb materials, to continue appealing to the approximately one million people from Japan and abroad who visit every year for the abolition of nuclear weapons and realization of genuine and lasting world peace.

At this time in U.S. history many are forgetting the horror of nuclear weapons, and our country is now developing new nuclear weapons and considering a first strike policy. Catholics, and all people of faith, should be at the forefront of opposition to such proposals.

This Exhibit Sponsored by the

Eastern Oklahoma Pax Christi Community

We are a community of Pax Christi USA members, representatives from several parish social justice committees and other friends who meet on a regular basis to pray, study and act for peace with justice. We embrace the Pax Christi USA statement of purpose and priorities.

Our local Pax Christi community meets from noon to 1:00 p.m. the second Tuesday of each month at the Church of the Madelene. We are currently discussing the book *The Challenge of Peace: God's Promise and Our Response*. This is the pastoral Letter on War and Peace by the National Conference of Catholic Bishops. We also sponsor other events, most recently in 2004 a presentation, "The Challenge of Faithful Citizenship...The Body of Christ at Work" presenting the Bishops' vision for how Catholics can participate in the political process, along with follow-up workshops at several parishes.

For more information visit our web site at www.paxchristitulsa.org or contact Fr. Richard Bradley at 272-3710.

About Pax Christi USA

Pax Christi USA strives to create a world that reflects the Peace of Christ by exploring, articulating, and witnessing to the call of Christian nonviolence. This work begins in personal life and extends to communities of reflection and action to transform structures of society. Pax Christi USA rejects war, preparations for war, and every form of violence and domination. It advocates primacy of conscience, economic and social justice, and respect for creation.

Pax Christi USA commits itself to peace education and, with the help of its bishop members, promotes the gospel imperative of peacemaking as a priority in the Catholic Church in the United States. Through the efforts of all its members and in cooperation with other groups, Pax Christi USA works toward a more peaceful, just, and sustainable world.

Pax Christi is a section of Pax Christi International, the Catholic peace movement.



Why Are We Presenting This Exhibit?

This exhibit is a reminder of the horrors of nuclear war and presents Catholic teachings on war and nuclear weapons, to encourage us to work towards a world free from the fear of nuclear war.

In August, 2005 Bishop William Skylstad, President of the United States Conference of Catholic Bishops, issued a statement with the text of a letter he sent to his counterpart in Japan. Here are some of Bishop Skylstad's words:



The memories of World War II and the first and only use of nuclear weapons compel our Conference and the entire Church to continue working for nuclear non-proliferation and the elimination of nuclear weapons. As the Holy See has repeatedly insisted, the peace we seek cannot be attained through nuclear weapons. At this year's Review Conference on the Treaty on the Non-proliferation of Nuclear Weapons, the Holy See stated: "Nuclear weapons assault life on the planet, they assault the planet itself, and in so doing they assault the process of the continuing development of the planet."

We hope and pray that the Church can contribute to the cause of peace as we support genuine nuclear disarmament and non-proliferation, not merely as ideals, but as moral imperatives and urgent policy goals. Our Conference will continue to urge the United States government to move away from its reliance on nuclear weapons for security and to commit itself to international non-proliferation and the successful control of nuclear materials in this age of terrorism. A true commitment to peace also requires us to promote respect for human life and dignity, human rights, and genuine development in a world plagued by injustice and poverty.

As we recall the end of World War II, we pray that the memory of Hiroshima and Nagasaki will impel all of humanity to work with renewed vigor for lasting peace built on the foundation of justice for all. In solidarity with the Church in Japan, our Conference pledges ourselves to realizing Pope Paul VI's call: "No more war, war never again!"

Sixty years after Hiroshima we still have nuclear weapons, and our country is constructing new nuclear weapons and considering a first-strike policy. Until these weapons are eliminated, we **DO** need to fear them. Seeing the impact on Hiroshima of that first primitive nuclear bomb reminds us this a technology we must fear, and work tirelessly to eliminate.

The exhibit does **NOT** make any judgments about why the bomb was dropped, nor does it go into the history of World War II. We know that the U.S. did not start the war and was not the aggressor, but there were many horrible acts committed by both sides. Whatever the reasons for dropping the bomb, the fact is it happened, and our goal - and the goal of the Catholic Church - is to be sure that nuclear weapons are never used again.

To this day there are differing opinions among historians and other authorities about why the United States dropped the bomb, and whether it was really necessary. Both sides have legitimate arguments. But that disagreement is exactly why we chose to **NOT** discuss why the bomb was dropped or the history the war. We want to focus on the impact of nuclear weapons and hope to avoid the strong, and justifiable, emotions many people have about World War II.

There is still much evil and violence in the world. Pearl Harbor, the Holocaust, Rwanda and 9/11 are, sadly, just a few examples. Our societies must learn to go beyond retribution and face evil and violence as Christ would - with love and nonviolence. That is the only way to achieve lasting peace in our world. The best way to honor all those killed by war and violence is to work towards a world that lives in peace, following the example of Jesus Christ. In the words of John Paul II, "To remember Hiroshima is to abhor nuclear war. To remember Hiroshima is to commit oneself to peace."

A Message To Veterans And Members of the Military



We honor and respect those who defend our country. This exhibit is not meant to judge the actions of current or past members of the military, or to place blame. Our goal is to be sure that nuclear weapons are never used again. We must look history square in the eye to be sure that history does not repeat itself.

Any responsible member of the military will tell you their goal is to avoid war and pursue peace - a very noble goal we in Pax Christi share. The decision to bomb Hiroshima and Nagasaki was more political than military. General Omar Bradley, Chief of Staff of the U.S. Army, got right to the point: "We have grasped the mystery of the atom and rejected the Sermon on the Mount."

General Omar Bradley



Excerpts from The Challenge of Peace by The United States Conference of Catholic Bishops

An essential component of a spirituality for peacemaking is an ethic for dealing with conflict in a sinful world. The Christian tradition possesses two ways to address conflict: nonviolence and just war. They both share the common goal: to diminish violence in this world.

Our conference's approach, as outlined in *The Challenge of Peace*, can be summarized in this way:

- 1) In situations of conflict, our constant commitment ought to be, as far as possible, to strive for justice through nonviolent means.
- 2) But, when sustained attempts at nonviolent action fail to protect the innocent against fundamental injustice, then legitimate political authorities are permitted as a last resort to employ limited force to rescue the innocent and establish justice.

Christian non-violence is not passive about injustice and the defense of the rights of others. It ought not be confused with popular notions of nonresisting pacifism. For it consists of a commitment to resist manifest injustice and public evil with means other than force.

The just-war tradition consists of a body of ethical reflection on the justifiable use of force. In the interest of overcoming injustice, reducing violence and preventing its expansion, the tradition aims at: a) clarifying when force may be used, b) limiting the resort to force and c) restraining damage done by military forces during war.

The just-war tradition begins with a strong presumption against the use of force and then establishes the conditions when this presumption may be overridden for the sake of preserving the kind of peace which protects human dignity and human rights.

First, whether lethal force may be used is governed by the following criteria:

- **Just Cause:** force may be used only to correct a grave, public evil, i.e., aggression or massive violation of the basic rights of whole populations;
- **Comparative Justice:** while there may be rights and wrongs on all sides of a conflict, to override the presumption against the use of force the injustice suffered by one party must significantly outweigh that suffered by the other;
- **Legitimate Authority:** only duly constituted public authorities may use deadly force or wage war;
- **Right Intention:** force may be used only in a truly just cause and solely for that purpose;
- **Probability of Success:** arms may not be used in a futile cause or in a case where disproportionate measures are required to achieve success;
- **Proportionality:** the overall destruction expected from the use of force must be outweighed by the good to be achieved;
- **Last Resort:** force may be used only after all peaceful alternatives have been seriously tried and exhausted.

These criteria (*jus ad bellum*), taken as a whole, must be satisfied in order to override the strong presumption against the use of force.

Second, the just-war tradition seeks also to curb the violence of war through restraint on armed combat between the contending parties by imposing the following moral standards (*jus in bello*) for the conduct of armed conflict:

- **Noncombatant Immunity:** civilians may not be the object of direct attack, and military personnel must take due care to avoid and minimize indirect harm to civilians;
- **Proportionality:** in the conduct of hostilities, efforts must be made to attain military objectives with no more force than is militarily necessary and to avoid disproportionate collateral damage to civilian life and property;
- **Right Intention:** even in the midst of conflict, the aim of political and military leaders must be peace with justice, so that acts of vengeance and indiscriminate violence, whether by individuals, military units or governments, are forbidden.

We... recognize that the application of these principles requires the exercise of the virtue of prudence; people of good will may differ on specific conclusions. The just-war tradition is not a weapon to be used to justify a political conclusion or a set of mechanical criteria that automatically yields a simple answer, but a way of moral reasoning to discern the ethical limits of action. Policy-makers, advocates and opponents of the use of force need to be careful not to apply the tradition selectively, simply to justify their own positions. Likewise, any application of just-war principles depends on the availability of accurate information not easily obtained in the pressured political context in which such choices must be made.

Billowing Mushroom Cloud

Hiroshima: 8:15 a.m., August 6, 1945
Nagasaki: 11:02 a.m., August 9, 1945



▲ The Mushroom Cloud about 1 Hour after the Drop (Hiroshima)

Taken from an altitude of about 9,000 m and a distance of about 80 km from the hypocenter from one of the three US bombers that took part in the A-bomb mission. (August 6, 1945-Photo: US Army)



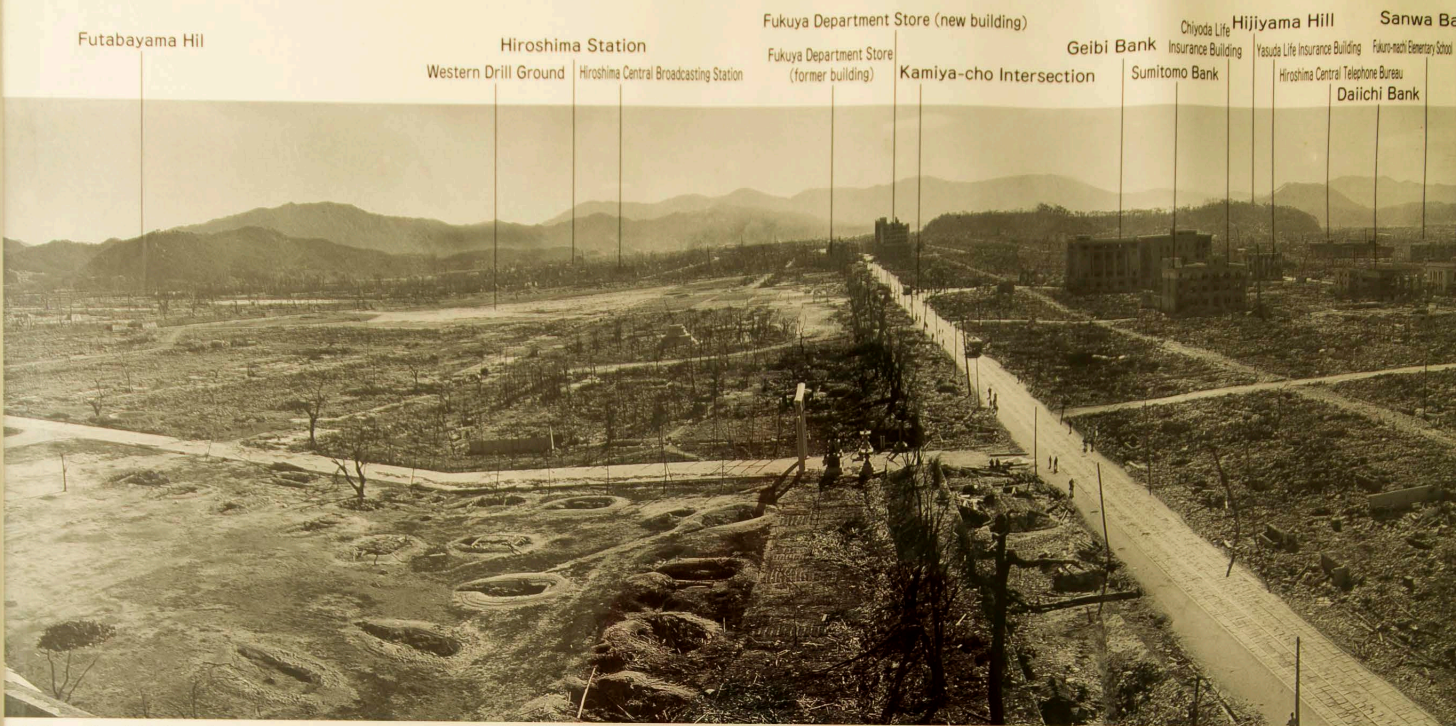
▲ The Instant of Detonation (Nagasaki)

A round white puff of smoke, then instantly a crimson fireball began to swell. (August 9, 1945-Photo: US Army) Courtesy: Peace Exhibit Creation Committee

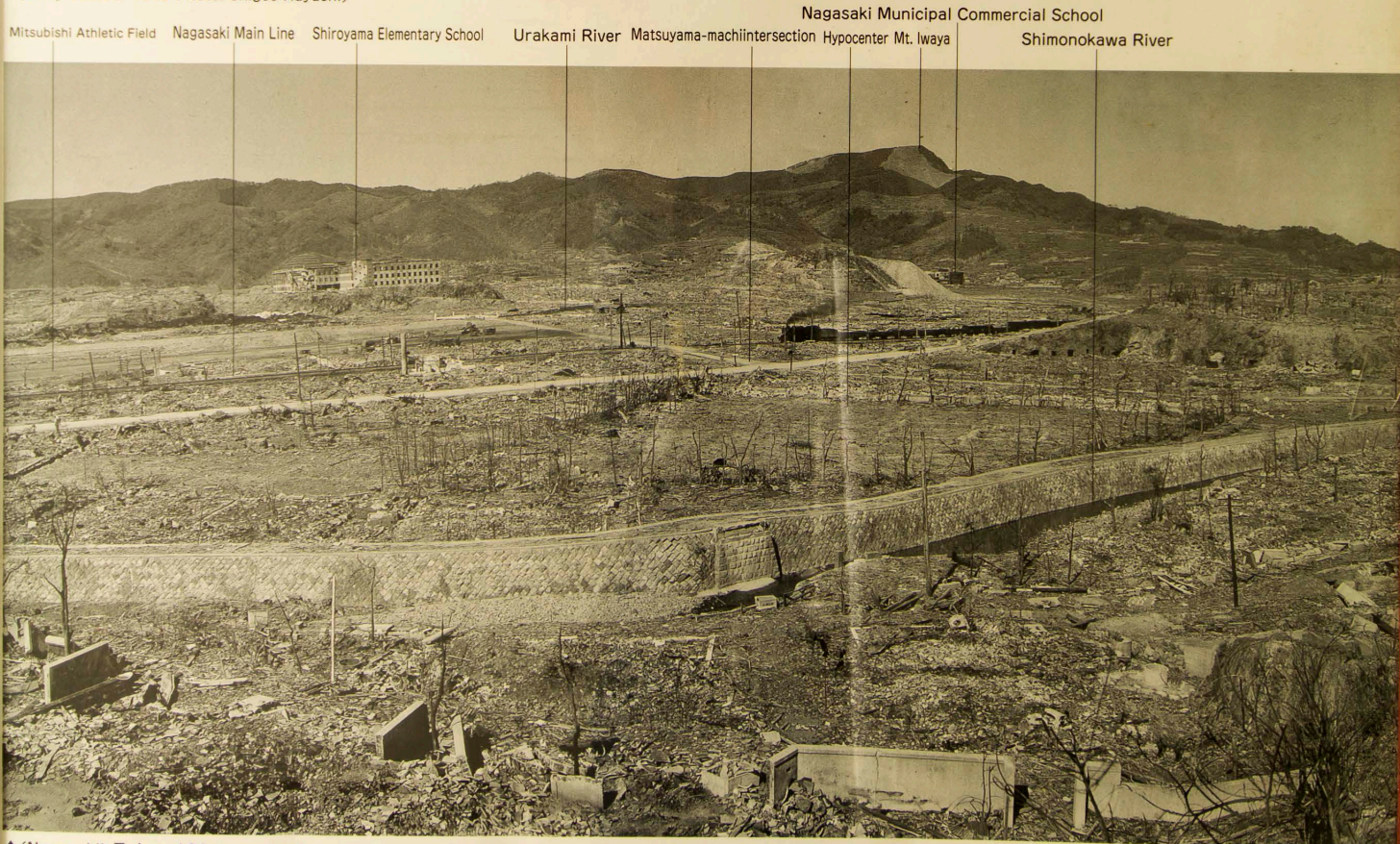


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The Vanished Cities

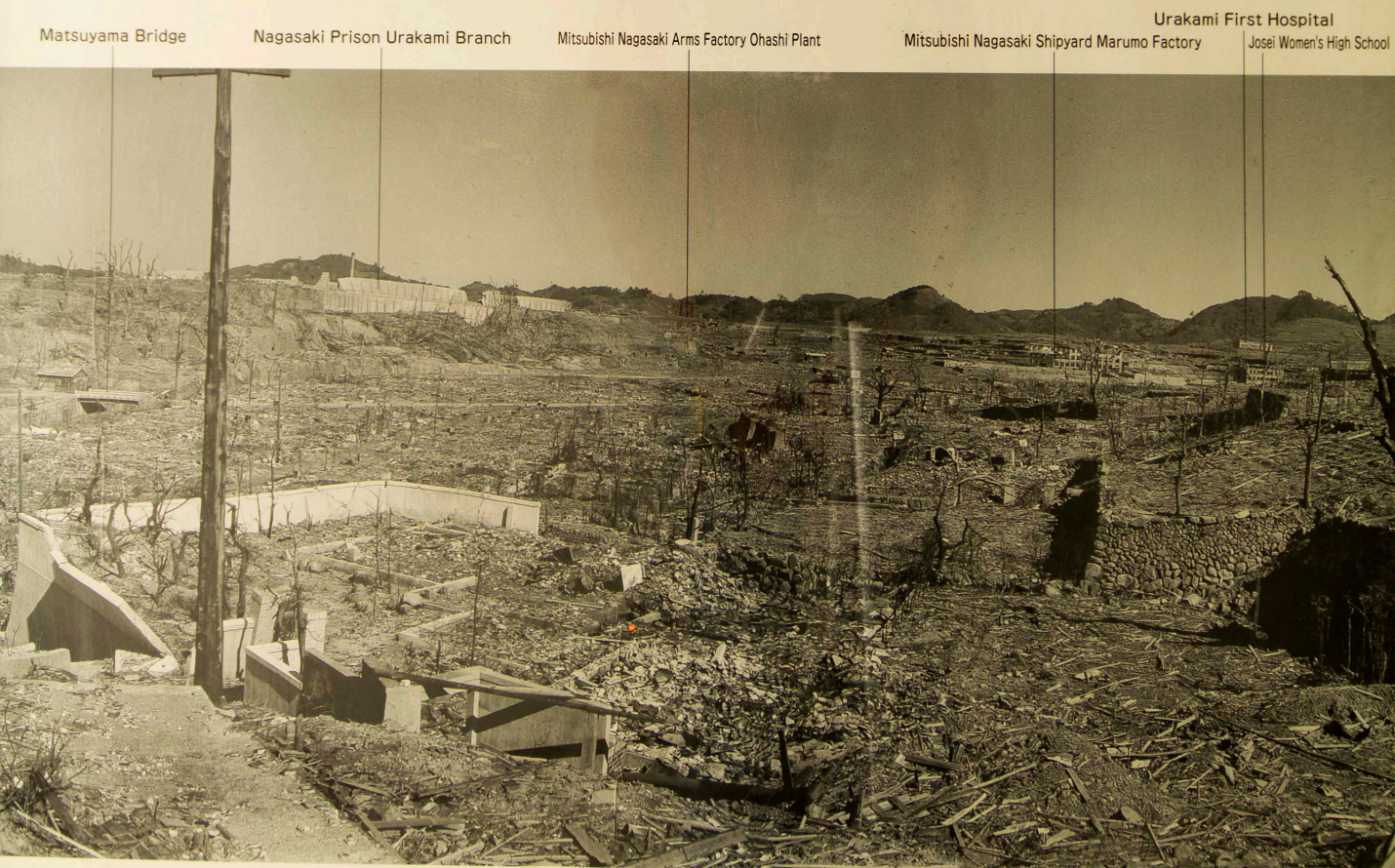
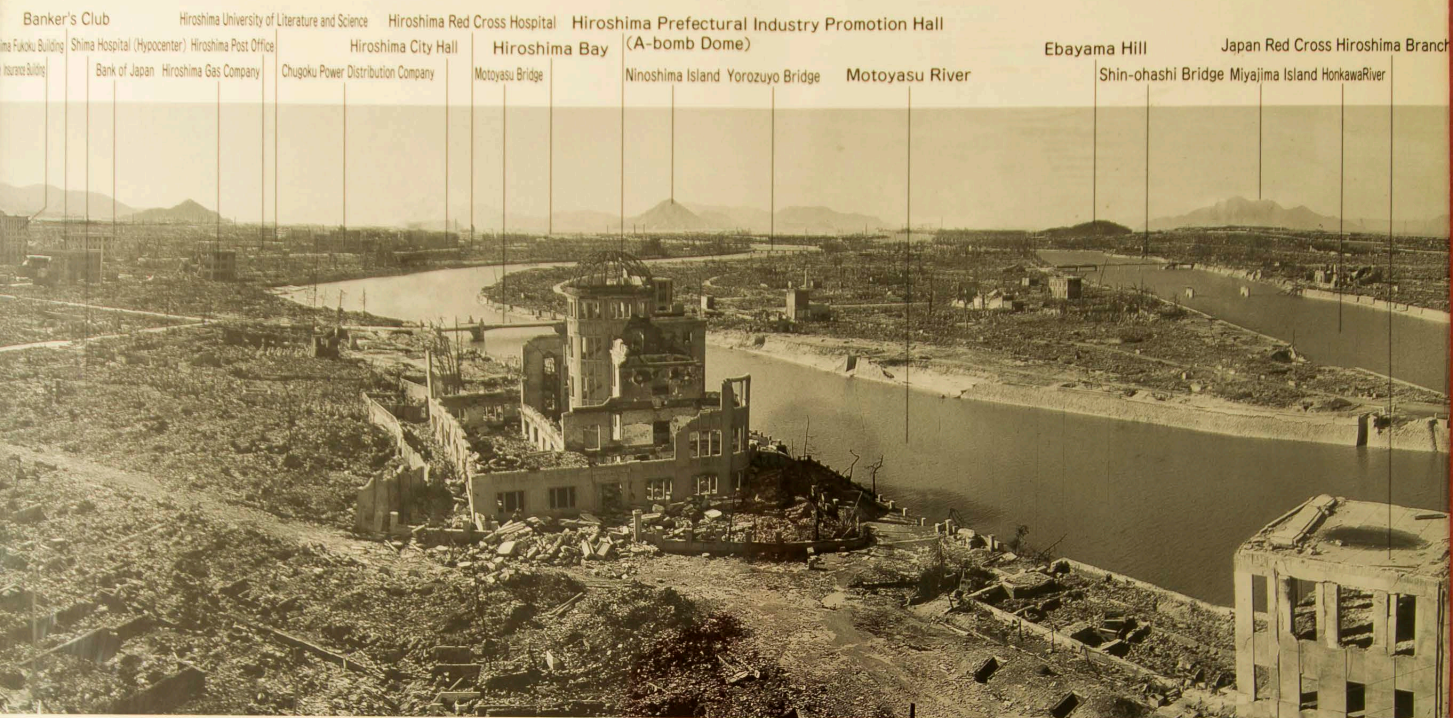


▲(Hiroshima) Taken from the roof of the Hiroshima Chamber of Commerce and Industry building 260 m north of the hypocenter.
(Early October 1945-Photo: Shigeo Hayashi)



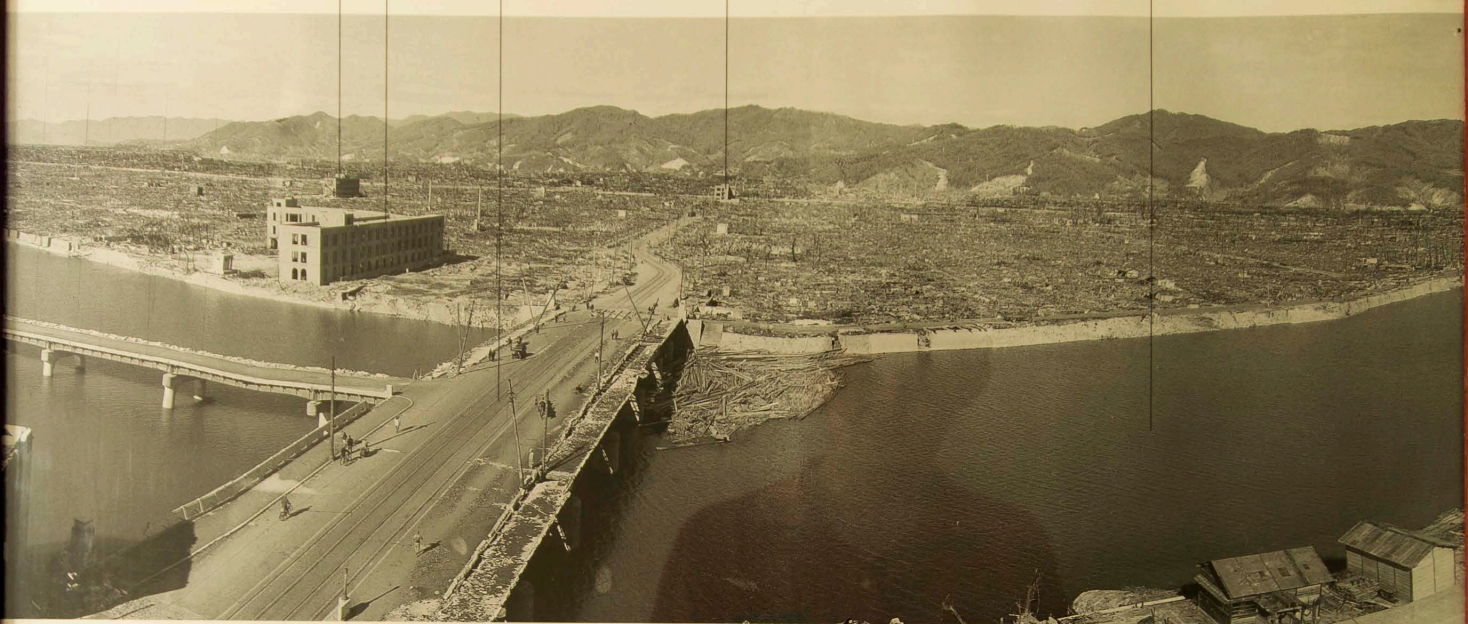
▲(Nagasaki) Taken 120 m east of the hypocenter (near what is now the Nagasaki Atomic Bomb Museum).
(Mid-October 1945-Photo: Shigeo Hayashi)

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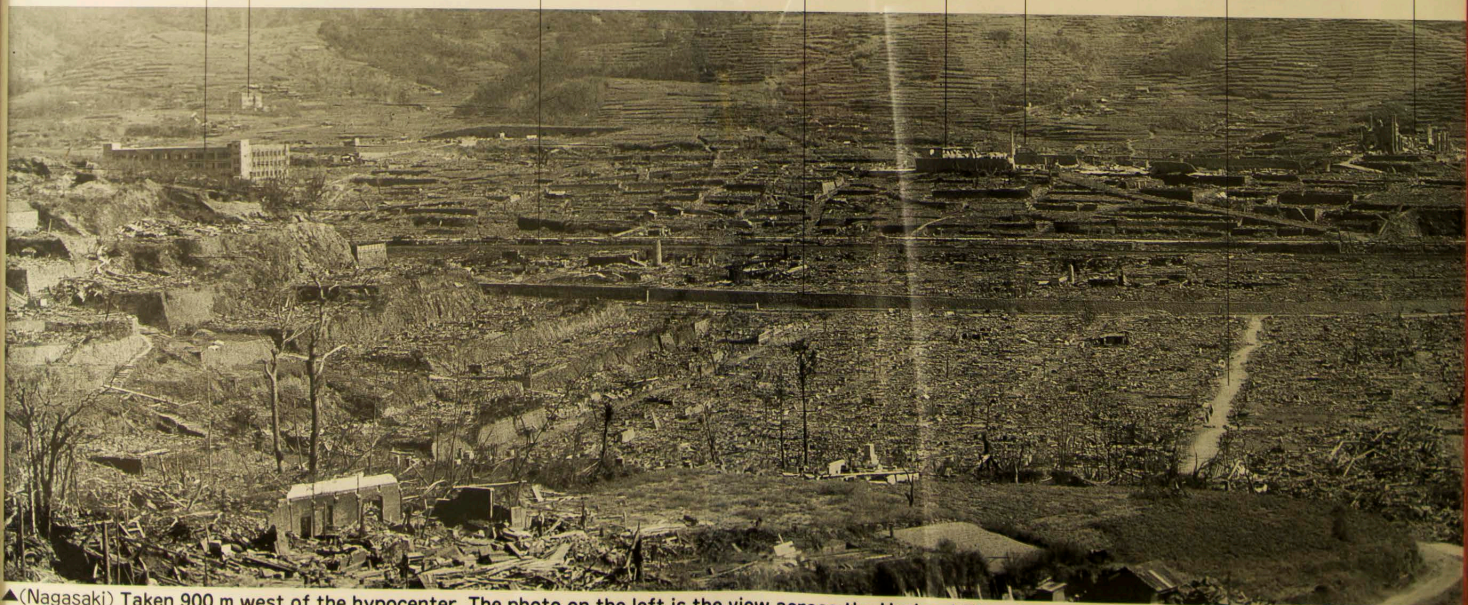


HIROSHIMA & NAGASAKI

Honkawa Elementary School
Kodo Elementary School
Aoi Bridge
Hiroshima Central Telephone Bureau, West Office
Ota River



Yamazato Elementary School
Urakami First Hospital
Nagasaki Main Line
Mitsubishi Nagasaki Shipyard Marumo Factory
Urakami River
Nagasaki Prison Urakami Branch
Shiroyama-machi 1-chome Hondori
Urakami Cathedral



▲(Nagasaki) Taken 900 m west of the hypocenter. The photo on the left is the view across the Urakami River in the opposite direction.
(Mid-October 1945-Photo: Shigeo Hayashi)

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A-bomb Damage

Atomic bombs utilize the enormous energy released by nuclear fission to inflict massive and instantaneous destruction and slaughter. The energy is released in three forms: heat, blast, and radiation. The synergistic effects of these three produce unimaginable destructive power. Two such bombs utterly obliterated the cities of Hiroshima and Nagasaki.

Long after the bombings, survivors continue to suffer from the physical damage caused by radiation. They have been forced to carry the terrible burden of never knowing when

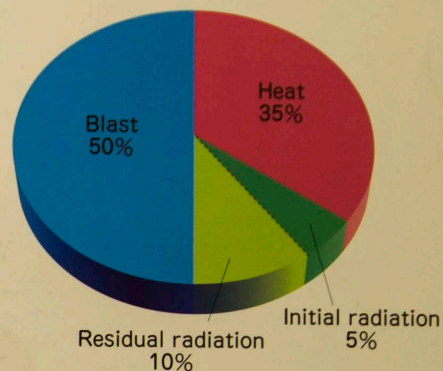
the aftereffects might manifest as a life-threatening disorder.

The atomic bombs inflicted massive human and property damage, resulting in intense psychological and emotional trauma, which was compounded by destruction of the entire fabric of those urban societies. The most distinctive characteristic of A-bomb damage is the complex interaction of destructive effects wrought by this broad spectrum of personal and social loss.

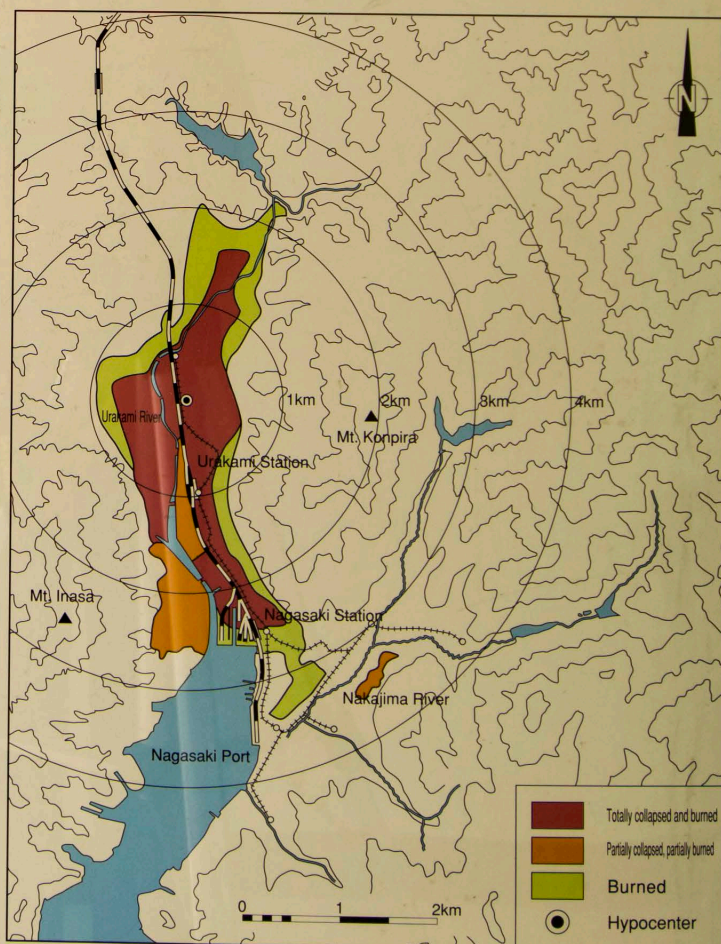
Profile of A-bomb Damage

Category	Hiroshima	Nagasaki
Time of explosion	8:15 a.m., August 6, 1945	11:02 a.m., August 9, 1945
Number of dead	About 140,000 (± 10,000) [Total pop. 350,000]	About 74,000 (± 10,000) [Total pop. 240,000]
Damage to buildings	No. of buildings at the time: about 76,000	No. of buildings at the time: about 51,000
% damaged	92 %	36 %
Totally collapsed and burned	63 %	23 %
Totally collapsed	5 %	2 %
Partially collapsed, partially burned, seriously damaged	24 %	11 %

Energy Released



Map of Damage in Hiroshima

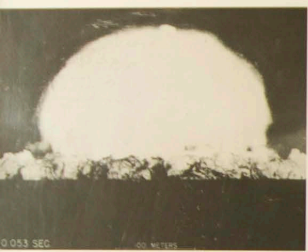
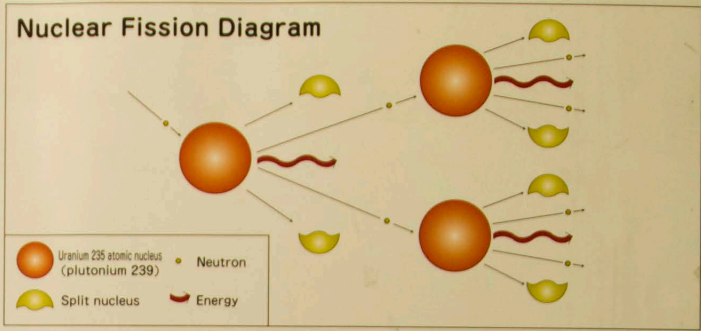


▲ Map of Damage in Nagasaki

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The Atomic Bomb

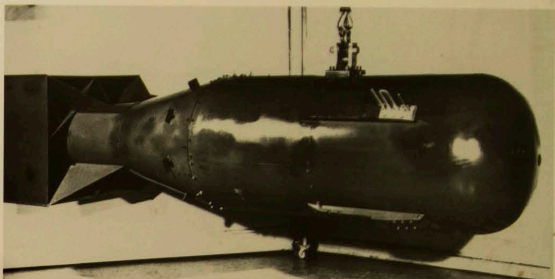
A single neutron colliding with the atomic nucleus of a fissionable substance like uranium 235 (or plutonium 239) can cause the nucleus to split, releasing 2 or 3 more neutrons and a large amount of energy in the forms of extreme heat and lethal radiation. These newly released neutrons collide with other nuclei, releasing more neutrons and more energy. Under proper conditions, this chain reaction spreads through the substance, releasing enormous energy instantaneously. The atomic bomb is a weapon designed to inflict massive destruction with the vast energy thus released.



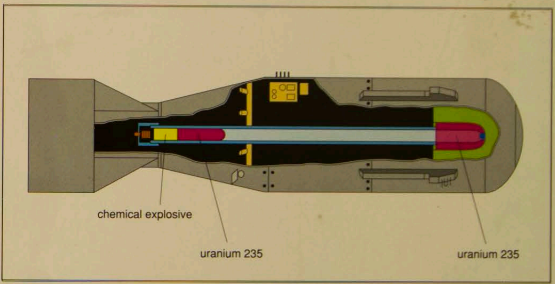
▲ The First Atomic Test at Alamogordo (July 16, 1945-Photo: US Army)

The Manhattan Project

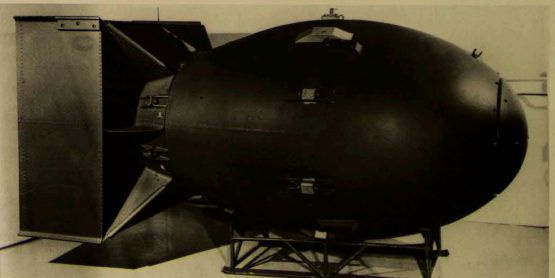
During the Second World War, which began in 1939, US President Franklin Roosevelt ordered the development of the atomic bomb. This development effort, called the "Manhattan Project," began in August 1942. It was carried out in top secrecy and absorbed vast financial and human resources.



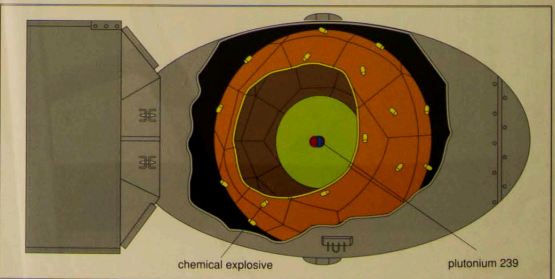
▲ The Atomic Bomb Dropped on Hiroshima (Little Boy)



▲ Cross-section Drawing of the Hiroshima Bomb



▲ The Atomic Bomb Dropped on Nagasaki (Fat Man)



▲ Cross-section Drawing of the Nagasaki Bomb

Profiles of Atomic Bombs

Category	Hiroshima	Nagasaki
Type	Gun-barrel; uranium bomb (nickname: Little Boy)	Implosion; plutonium bomb (nickname: Fat Man)
Weight	approx. 4 tons	approx. 4.5 tons
Explosive power (TNT equivalent)	approx. 15,000 tons	approx. 21,000 tons
Detonation altitude	580 m ± 15 m	500 m ± 10 m
Structure	Quantities of uranium 235, each less than a critical mass, were placed at two ends of a long, thin cylinder. A chemical explosion propelled the U-235 at one end forcefully into the piece at the other end, instantly creating a critical mass and starting a fission chain reaction. U-235 is present in natural uranium, but only in tiny amounts. This bomb thus required technology to increase that percentage.	Quantities of plutonium 239, each less than a critical mass, were placed around the inside of a sphere. A chemical explosion drove the pieces forcefully toward the center, compressing them instantly into a critical mass and starting the nuclear fission. P-239 does not exist naturally. This bomb thus required a reactor capable of creating this element.

Critical mass: The minimum amount of fissionable material required to sustain a nuclear chain reaction.

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Before the A-bomb



▲ Before the Bombing (Hiroshima) This photo shows, just left of center, the Hiroshima Prefectural Industry Promotion Hall (now, the A-bomb Dome). (June 13, 1936-Photo: Noboru Watanabe)

Hiroshima

The city of Hiroshima boasted two primary aspects. Its high concentration of army installations made it a "military city," while the Hiroshima Higher School of Education supported its reputation as an "education city."



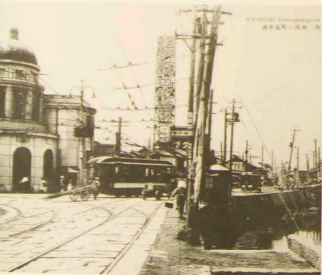
▲ Hondori (Main Street) before the War (Hiroshima) (1937) Courtesy: Hiroshima Municipal Archives



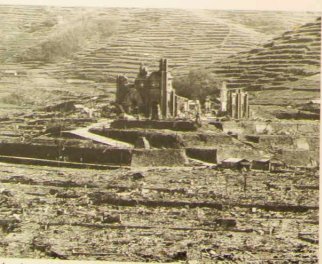
▲ After the Bombing (Hiroshima) This photo was taken after the bombing from the same location as the photo on the left. The A-bomb Dome can be seen in the center. (Autumn 1945-Photo: Yoshita Kishimoto)

Nagasaki

As Nagasaki modernized, its main industry shifted from trade to shipbuilding.



The Hama-machi Streetcar Corner Before the War (Nagasaki) Courtesy: Nagasaki Atomic Bomb Photograph Investigation Association



Urakami Cathedral after the Bombing (Nagasaki) (Mid-October 1945-Photo: Shigeo Hayashi)



▲ Before the Bombing (Nagasaki) The large building in the center is Urakami Cathedral. Courtesy: Nagasaki Atomic Bomb Photograph Investigation Association

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Immediately After the Bombings



A-bomb Survivors Suffering from Burns and Other Injuries (Hiroshima, about 2.3 km from the hypocenter)
Approximately 3 hours after the bombing (Just after 11 a.m., August 6, 1945-Photo: Yoshito Matsushige)



◀ Policeman Writing Disaster Certificates

(Hiroshima, about 2.4 km from the hypocenter)
(After 4 p.m., August 6, 1945-Photo: Yoshito Matsushige)

A Young Girl on a Relief Truck ▶

(Hiroshima, about 300 m from the hypocenter)
With red and oozing burns, this girl lacked even the strength to drink water.
(August 12, 1945-Photo: Hajime Miyatake)



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▲ Stunned Survivors Watching Vacantly over the Injured (Nagasaki, about 1.1 km from the hypocenter) (August 10, 1945-Photo: Yosuke Yamahata)



▲ A Horse and Wagon near the Hypocenter (Nagasaki)
(August 10, 1945-Photo: Yosuke Yamahata)



▲ A Mother and Child Dead on the Platform at Urakami Station
(Nagasaki, about 1 km from the hypocenter) (August 10, 1945-Photo: Yosuke Yamahata)



▲ The Charred Body of a Young Boy (Nagasaki)
(August 10, 1945-Photo: Yosuke Yamahata)

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Gathering Bodies (Hiroshima) Bodies being gathered for cremation was a common sight throughout the city. (August 10, 1945-Photo: Hajime Miyatake)



▼ **Relief Workers Carrying a Seriously Injured Victim on a Stretcher**

(Nagasaki, about 1.1 km from the hypocenter)

Taken near Urakami Station the day after the bombing. Those carrying the stretcher appear to be factory workers who joined the relief effort.

(August 10, 1945-Photo: Yosuke Yamahata)

▼ **Crowded, Chaotic Relief Station**

(Hiroshima, about 1.2 km from the hypocenter)

Lacking other medical supplies, the best relief workers could do, at best, daub the burns with zinc oxide and cover them with gauze.

(August 8, 1945-Photo: Yotsugi Kawahara)



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Conditions Immediately after the Bombing as Drawn by Survivors



▲ August 6 (Hiroshima) (Picture: Kanemitsu and Chieko Ikeda)



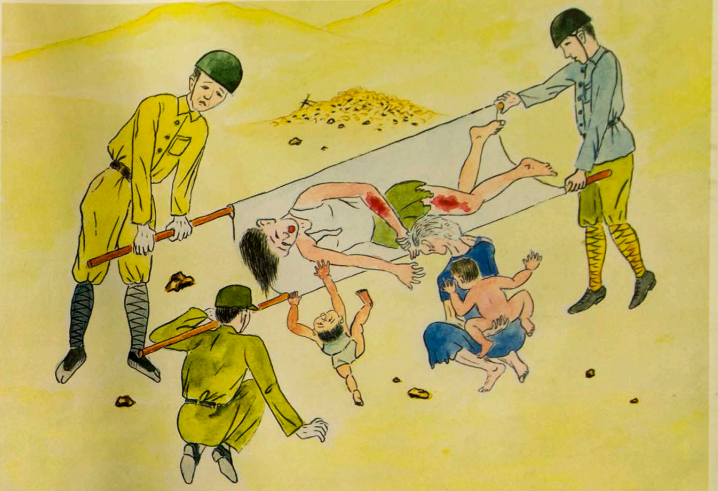
▲ Dead Victims Clustered around a Fire Cistern (Hiroshima) (Picture: Akira Onoki)



▲ A Woman Trapped under a Collapsed House and Calling for Help (Hiroshima) (Picture: Shoichi Furukawa)



▲ Destroyed Steel Mill (Nagasaki) (Picture: Hiroshi Matsuzoe)



▲ Children Crying as their Mother is Taken Away on a Stretcher (Nagasaki) (Picture: Sakae Ikeda)



▲ The Urakami Area after the Bombing (Nagasaki) (Picture: Mura Ashizuka)

Heat Rays

When the A-bomb exploded, the temperature at the epicenter soared to over one million degrees centigrade. The fireball expanded to 280 m in diameter. The heat rays generated by the fireball brought temperatures on the ground near the hypocenter to 3,000 to 4,000 °C.



▲ Shadows of Railings Cast by the Heat Rays (Hiroshima, 890 m from the hypocenter) (November 1945-Photo: US Army)



▲ Human Shadow Etched in Stone (Hiroshima, 260 m from the hypocenter)
The heat rays burned the stone steps white. Only the place where a person was sitting remained dark.
(End of 1946-Photo: Yoshito Matsushige)



▲ Shadow of a Man and Ladder on a Wooden Wall
(Nagasaki, about 4.4 km from the hypocenter) (Photo: Eiichi Matsumoto)



▲ Charred Remains of a Fence Ignited by the Heat Rays
(Hiroshima, 2.1 km from the hypocenter)
The heat rays caused this crosstie fence along the Sanyo Main Line to burst into flame.
(End of August 1945-Photo: Isao Kita)

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Blast

The explosion generated super-high air pressure, reaching hundreds of thousands of atmospheres. The surrounding air expanded enormously creating an extremely powerful blast. The leading edge of the blast was a shock wave traveling faster than sound, followed by a powerful wind.

At the hypocenter, the maximum blast pressure was 35 tons per m². The maximum wind velocity was 440 m/sec (about 1,000 mph).

The shock wave and blast crushed all wooden buildings within 2.3 km of the hypocenter. Close to the hypocenter it crushed even ferro-concrete buildings.



▲ Looking North from the Hypocenter (Hiroshima)

In the foreground is Shima Hospital, at the hypocenter. To the right is the gate to Gokoku Shrine. (November 1945-Photo: US Army)



▲ The Aioi Bridge Buckled by the Blast (Hiroshima, 300 m from the hypocenter)

The Aioi Bridge, located in downtown Hiroshima, is said to have been the target of the bombing. This 30 cm-thick concrete sidewalk was blown upward by the intense blast reflecting off the river.

(October 1945-Photo: Toshio Kawamoto)



▲ Building Directly beneath the Epicenter (Hiroshima, 210 m from the hypocenter)

This roof, punched in by the blast from directly above, is collecting rainwater. (November 1945-Photo: US Army)



▲ Statues of St. Maria and St. John in the Ruins of Urakami Cathedral (Nagasaki, 500 m from the hypocenter)

The cathedral was totally destroyed. All parishioners there at the time died. (November 1945-Photo: US Army)



▲ Shiroyama National Elementary School in Ruins (Nagasaki, 500 m from the hypocenter)

Because of an air-raid alert, the building was occupied by faculty, pupils, and a number of Mitsubishi Nagasaki Ordnance Factory employees, who were using the school. Nearly all died. (Mid-October 1945-Photo: US Army)

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Super-High-Temperature Fire



▲ **Burned Corpses Scattered near the Hypocenter** (Nagasaki, 110 m from the hypocenter) Near the Nagasaki streetcar track running close to the hypocenter. (August 10, 1945-Photo: Yosuke Yamahata)

The heat rays emitted by the fireball ignited houses and anything combustible near the hypocenter. Kitchen fires in collapsed houses around the city also spread out of control. Throughout the day, the entire city was engulfed in a sea of flame. The total area reduced to ashes was about 13 km² in Hiroshima and 6.7 km² in Nagasaki.

Though the total energy of the Nagasaki bomb was greater than that of Hiroshima, more of Hiroshima burned due to topography and the distribution of buildings.



▲ **Ruins of the Nagasaki Medical College Hospital** (Nagasaki, 700 m from the hypocenter) More than 1,000 staff, nursing students, patients, and visitors were in this hospital. (October 1945-Photo: US Army)



▲ **Downtown Hiroshima in Flames**

Taken from the Army Ship Training Division Grounds, about 4 km south of the hypocenter (August 6, 1945-Photo: Gonichi Kimura)



▲ **The Burned Plain** (Hiroshima)

The view from the hypocenter extends unobstructed all the way to Ninoshima Island, about 10 km away in Hiroshima Bay. (October 1945-Photo: US Army)

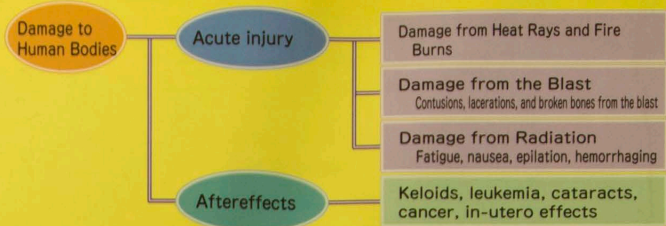
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Damage to Human Bodies

Acute Injuries

The injuries inflicted by the A-bomb are broadly divided into acute injuries and aftereffects. Most acute injuries were caused by complex interactions of heat ray and fire burns, blast contusions and lacerations, and radiation damage.

"Aftereffects" refers to disorders or illnesses that manifested after the acute injuries. They are assumed to be caused mainly by radiation.



Burns from Heat Rays and Fire

The intense heat rays from the fireball inflicted normally inconceivable burns. In severe cases, the surface layer of skin was burned crisp and slid off the body, exposing the tissues beneath, sometimes down to the bone. The burns of victims directly exposed within 1.2 km of the hypocenter extended into internal tissues and organs. The vast majority of these victims died within a few days.

Nearly every building in the city collapsed, so thousands were trapped inside or under heavy debris. Unable to escape, they were burned alive by the sea of fire.



▲ A Boy of 16 Exposed while Riding his Bicycle (Nagasaki, 1.8 km from the hypocenter)
This boy lived, but spent an agonizing year and nine months lying face down in bed.
(November 1945-Photo: US Army)



▲ Man Burned over his Entire Body (Hiroshima, about 1 km from the hypocenter)
His unburned waist was protected by a waistband.
(August 7, 1945-Photo: Masami Onuka)

Damage from the Blast

The blast hurled people through the air and crushed them under collapsed buildings. Many found their skin filled with glass fragments from shattered windows.



▲ Patient with Hundreds of Glass Fragments in His Back (Nagasaki)
(1945-Photo: Masao Shiotsuki)

Damage from Radiation

The A-bomb released massive amounts of radiation, far beyond levels normally found in nature. This radiation is what made the A-bomb qualitatively different from conventional bombs. Victims exposed to radiation suffered serious injury, and even today, more than 50 years later, radiation damage continues to cause great suffering to many. The immediate effects of radiation poisoning include the destruction of cells, damage to blood-forming and other organs, weakened immune functions, and loss of hair.



▲ A Soldier on the Verge of Death (Hiroshima, exposed 1 km from the hypocenter)
Subcutaneous bleeding, stomatitis, and hair loss.
(End of August 1945-Photo: Gonichi Kimura)



▲ Body with Eyes Popped Out by the Blast (Hiroshima, 800-900 m from the hypocenter)
(August 10, 1945-Photo: Satsuo Nakata)



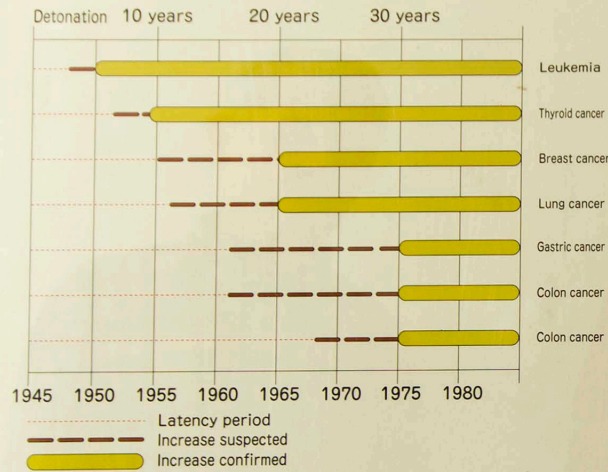
▲ A Girl Who Has Lost Her Hair (Nagasaki)
Suddenly, about two weeks after the bombing, large numbers of survivors began losing their hair. This symptom was prevalent for the following 1 to 2 weeks.
(Late August 1945-Photo: Eiichi Matsumoto)

Aftereffects

Most acute injuries had taken their toll or healed within 4 to 5 months. However, the aftereffects, including a distinct increase in leukemia five or six years after the bombing, have continued to cause serious problems. The most common aftereffects include keloids (abnormally thick scar tissue over burns), cataracts, leukemia, as well as thyroid, breast, lung, and other cancers. Some in-utero survivors were born with microcephaly, often accompanied by mental and developmental retardation.

Even today we have much to learn about the full range of effects produced over the years by radioactive substances taken into the body. We do know that survivors continue to suffer from radiation aftereffects.

Years of Cancer Occurrence



A-bomb Microcephalic with her Mother (now deceased) (Hiroshima)
 The A-bomb radiation had numerous adverse effects on fetuses exposed in their mothers' wombs. Those born with mental or physical defects have survived thus far through the loving care of their parents. However, as these survivors age and their relatives die, many are unable to live independently. Their care has become a major issue.
 (April 1978) Courtesy: Takaharu Narita



Man with Skin Cancer on His Right Hip (Hiroshima, exposed 1.2 km from the hypocenter)
 Courtesy: Hiroshima Red Cross and Atomic-bomb Survivors Hospital



Man with Keloids on His Face and Neck (Nagasaki, exposed 1 km from the hypocenter)
 (June 1970-Photo: Nagasaki Chapter of the Japan Realist Photographers)

Sadako A Young Girl's Death



▲ A Few of Sadako's Paper Cranes (May 20, 1997 -Photo: Michio Ide)



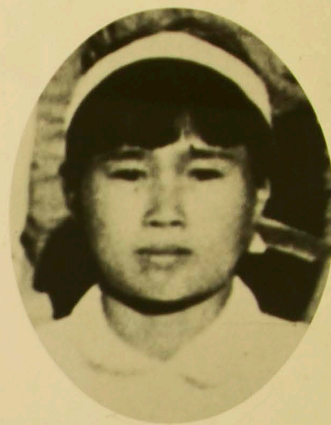
▲ Children's Peace Monument (August 6, 1995-Photo: Michio Ide)

Sadako Sasaki was two years old at the time of the bombing. She grew up strong and healthy, but ten years later (1955), when she was in the sixth grade in elementary school, she was hospitalized with leukemia.

Sadako believed that folding 1,000 paper cranes would cure her illness. While in the hospital she folded cranes whenever she could, but her hope was in vain. She died after fighting the disease for eight months. Her death reveals the great horror of radiation –its ability to injure and kill many years after exposure.

Sadako's classmates were terribly shocked by her death and the story of her paper cranes, so they started collecting money to build a monument to comfort her soul and the souls of the many children killed by the A-bomb, and to express their hope that there would never be another war. This campaign spread to schools around the nation and around the world. In 1958, the Children's Peace Monument was erected in Hiroshima Peace Memorial Park, depicting a young girl lifting a paper crane high over her head.

Beneath the monument, carved in black granite, are the words, "This is our cry. This is our prayer. For peace in this world." The area around this statue is always full of paper cranes sent by peace-loving people throughout world.



▲ Sadako in the Sixth Grade
Courtesy: Chugoku Shimibun
(newspaper) Company



▲ Children Collecting Funds to Build the Children's Peace Monument (1956)
Courtesy: Chugoku Shimibun Company

HIROSHIMA & NAGASAKI

Under the Mushroom Cloud



People Who Lived beneath the Epicenter
Courtesy: Chugoku Shimbun Company

HIROSHIMA & NAGASAKI

Urakami Cathedral

Nagasaki, Japan
The Catholic Church in Japan



The Urakami Cathedral, one of Nagasaki's prominent landmarks, stands on a hill amid the rubble of a residential district east of ground zero.



The statues of the Madonna and John the Apostle stand at the ruins.



Two women pray before a statue of the Virgin Mary in the days after the bombing.

Early in the morning of August 9, 1945, a B-29 Superfortress took off headed for the Japanese city of Kokura, the primary target for the second nuclear bomb. The crew had instructions to only drop the bomb on visual sighting, and after finding Kokura clouded over they headed for their secondary target, Nagasaki.

Nagasaki is famous in the history of Japanese Christianity. Not only was it the site of the largest Christian church in the Orient, St. Mary's Cathedral, but it also had the largest concentration of baptized Christians in all of Japan. It was the city where the legendary Jesuit missionary, Francis Xavier, established a mission church in 1549, a Christian community which thrived and multiplied for several generations until, in the early 1600s, it became the target of brutal Japanese Imperial persecutions.

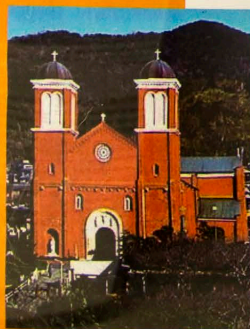
Within 50 years of the planting of Xaviar's mission church, it was a capital crime to be a Christian. The Japanese Christians who refused to recant their beliefs suffered ostracism, horrific torture and even crucifixions similar to the Roman persecutions in the first three centuries of Christianity. After the reign of terror was over, it appeared to all observers that Christianity had been stamped out.

However, in the 1850s, after the gunboat diplomacy of Commodore Perry forced open an offshore island for American trade, it was discovered that there were still thousands of baptized Christians in Nagasaki, living their faith in a catacomb existence, completely unknown to the government, which immediately started another purge. But because of international pressure, the persecutions were soon stopped, and religious freedom was granted in 1873.

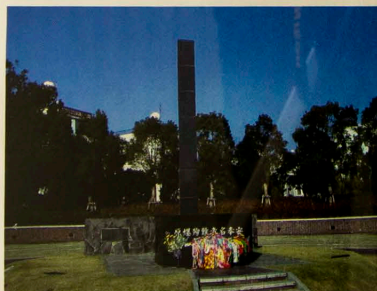
In 1925 the people of Urakami, one of the former enclaves of the hidden Christians, constructed a grand brick and stone Cathedral, said to be the largest in the Orient.

In a twist of fate, the Urakami Cathedral was one of the landmarks that the bombardier had been briefed on, and, looking through his bomb site over Nagasaki that day, he identified the cathedral, ordered the drop, and, at 11:02 am, Nagasaki Christianity was vaporized.

Urakami Today



The Urakami Cathedral was rebuilt in 1959



Today the Urakami District is called the "Love and Peace Zone."



Japan Today

Revival from Ruins Getting Back on their Feet



▲ A Boy Carrying His Injured Brother (August 10, 1945-Photo: Yosuke Yamahata)



▲ Young Girls Hurrying Home with Bags of Rationed Food on their Shoulders (Nagasaki)
(Early September 1945-Photo: Eiichi Matsumoto)

The A-bombings were followed by a time of chaos and confusion. Japan's surrender and the Allied Occupation brought tremendous change. Despite dire shortages of food, capi-

tal, and materials of all kinds, the people of Hiroshima and Nagasaki fought off their despair and struggled to rebuild their lives.



▲ Shacks near Nagasaki Station (Nagasaki)
One month after the bombing. These shacks were built with any unburned materials available.
(September 1945-Photo: Torahiko Ogawa)



▲ Shacks near Yokogawa Station (Hiroshima)
The outskirts recovered more quickly than the center of town.
(October 15, 1945-Photo: Shunkichi Kikuchi)

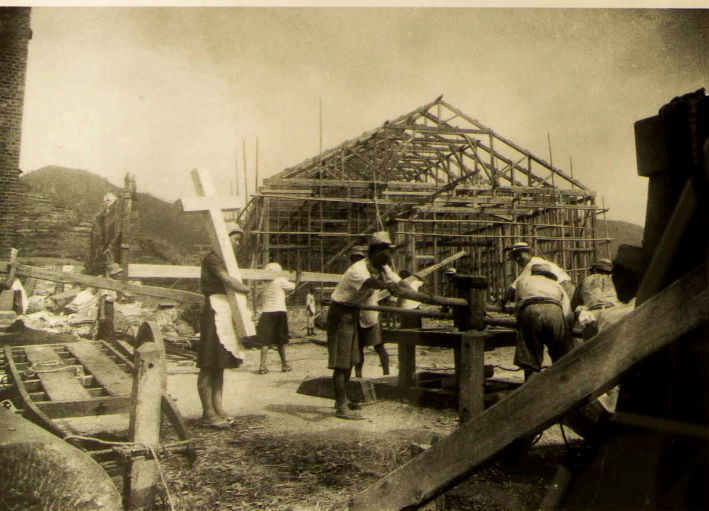
HIROSHIMA & NAGASAKI

Reviving the Cities



▲ Reconstruction of Aioi Bridge (Hiroshima)

Workers making temporary repairs on Aioi Bridge. Its railings were blown away and much of the roadway was destroyed. (1947-Photo: Yoshita Kishimoto)



▲ Building a Temporary Cathedral (Nagasaki)

Surviving parishioners set about building a temporary cathedral. (August 1946-Photo: Yasuo Tomishige)



▲ Replacing Streetcar Track (Hiroshima)

A burned-out streetcar appears on the left. The A-bomb dealt a devastating blow to Hiroshima's streetcars, but three days later, service was restored to a portion of the line. Section after section was reopened and, though only a limited number of cars were running, operation resumed on all lines by the following October. (October 1945-Photo: Shunkichi Kikuchi)

HIROSHIMA & NAGASAKI

Help from Abroad



▲ **Norman Cousins and the Orphans** (Hiroshima)

Norman Cousins, editor-in-chief of the American magazine *Saturday Review*, proposed a Spiritual Adoption Movement. By the end of November 1951, he sent over \$12,000 to 263 children. On March 3, 1964, the city of Hiroshima made him an honorary citizen.

(January 9, 1951) Courtesy: Chugoku Shimbun Company



▲ **One of the Hiroshima A-bomb Maidens Receiving Treatment in the US** (Hiroshima)

Twenty-five "A-bomb maidens" traveled to the US for treatment of their keloids.

(May 1955) Courtesy: Chugoku Shimbun Company



▲ **Orphans at Seibo no Kishien** (Nagasaki)

Many children lost their families in the war and were abruptly left to fend for themselves. At Seibo no Kishien, these war orphans were warmly welcomed and cared for.

(May 1947) Courtesy: Seibo no Kishi, a friary of the Franciscan Friars



▲ **Children's Library** (Hiroshima)

This library was built with money sent from the Hiroshima Prefecture Association of California. It was later rebuilt but remains the Municipal Children's Library.

Courtesy: Chugoku Shimbun Company

HIROSHIMA & NAGASAKI

Recovery



The City Seen from Hijiya Hill. (Hiroshima)

The wide street stretching straight off into the distance is Peace Boulevard, then under construction. (April 1957-Photo: Yoshitaka Nakatani)



South of the Hypocenter, Nine Years after the Bombing (Nagasaki)

This photo was taken from the International Culture Hall, then under construction. (It is now the site of the Nagasaki Atomic Bomb Museum.) In accordance with the Nagasaki International Culture City Construction Project, the area was laid out on a grid for redevelopment.

(August 1954) Courtesy: Nagasaki Shimbun Company

HIROSHIMA & NAGASAKI

Hiroshima and Nagasaki Today



▲ Hiroshima Today (April 18, 1996-Photo: Michio Ide)

Hiroshima

Having learned much from its historic tragedy, Hiroshima is striving to offer hope and courage to struggling people around the world.



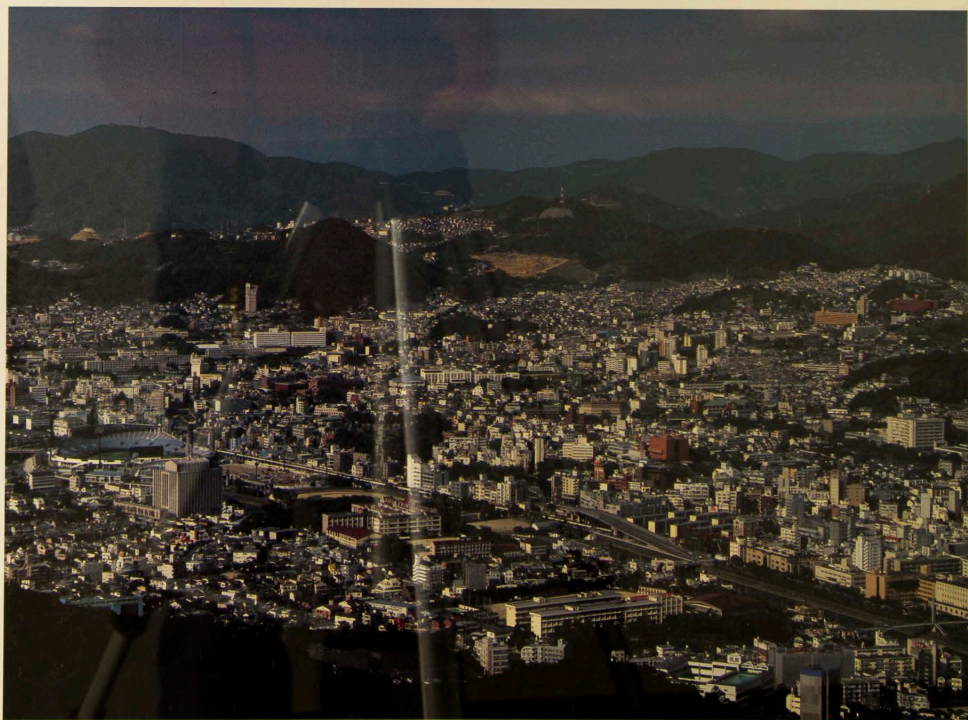
▲ The Peace Memorial Ceremony (Hiroshima)
(August 6, 1997) Courtesy: City of Hiroshima

Nagasaki

Nagasaki is deepening its interaction with people around the world and utilizing the energy generated by diversity and exchange to advance the cause of peace.



Peace Memorial Ceremony (Nagasaki)
(August 9, 1997) Courtesy: City of Nagasaki

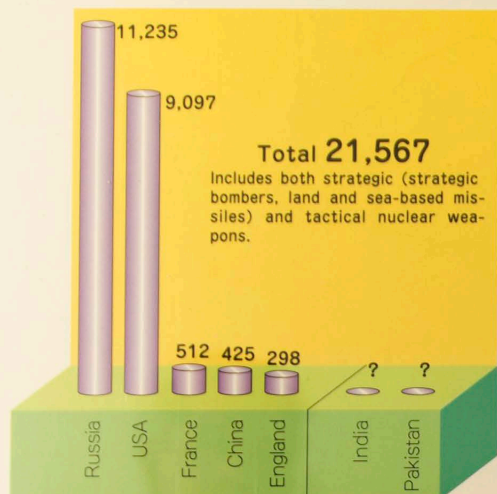


▲ Nagasaki Today (July 1997) Courtesy: City of Nagasaki

HIROSHIMA & NAGASAKI

Nuclear Weapons Now

Nuclear Warheads Possessed by the Nuclear Powers



(Figures for the five recognized nuclear powers from the January 1996 SIPRI Yearbook)

Nuclear Deterrence Theory

The idea of nuclear deterrence is simple. "If I threaten my enemy with powerful weapons, I can keep him from attacking me." This idea requires that participating nations always have nuclear weapons powerful enough to destroy their opponent. Thus, for about 40 years after World War II, or until about 1985, the Soviet Union and the US led East and West camps in an ever-escalating nuclear arms race. During this race, they accumulated enough nuclear power to destroy each other many times over, and simultaneously created the potential for an all-out nuclear war that could annihilate the entire human race.

The international community has subsequently poured considerable energy into nuclear disarmament, but the nuclear powers still cling to their nuclear arsenals.



▲ After the Nuclear Test in the Pokaran Desert, India (May 11, 1998) Courtesy: Reuters Sun

Nuclear Testing

The nuclear arms race escalated rapidly during the East-West Cold War that followed World War II. One by one, the USSR, England, France, and China conducted nuclear tests and joined the US as nuclear powers. In May 1998, India conducted its first test in 24 years, and Pakistan conducted its first ever.

More than 2,000 nuclear tests have been conducted to date.



▲ 17-year-old Girl Born and Raised Near the Semipalatinsk Nuclear Test Site in the Former Soviet Union (1994-Photo: Yuri Ivanovich Kuidin)

The Hidden Cost of Nuclear Testing and Development

Radiation poisoning derived from the process of developing, manufacturing, testing, and deploying nuclear weapons has resulted in death for many innocent people around the world, and many more still suffer the aftereffects. Furthermore, it will take far more time and money to decontaminate nuclear test sites and factories, deal with the vast amount of existing fissionable material, and store, dismantle and dispose of radioactive waste than was spent in developing the weapons. Controlling the waste, which will remain dangerously radioactive for tens of thousands of years, presents serious hazards of radiation leakage (due to container corrosion) and explosion.



▲ Drums Filled with Radioactive Waste Left Exposed to the Elements (January 1994-Photo: US Dept. of Energy)



▲ Land Contaminated by Radioactive Waste Stored in Underground Tanks (January 1994-Photo: US Dept. of Energy)

HIROSHIMA & NAGASAKI

Toward a Peaceful World Free From Nuclear Weapons

Expanding Nuclear-Free Zones

Nuclear-free zones are created through formal promises that countries within defined areas will never manufacture, test, acquire, or possess nuclear weapons. These treaties thus reduce the threat of nuclear war and ease international tensions.

Declaring a nuclear-free zone does not immediately solve the problem, but the spread of such zones reinforces the nuclear non-proliferation regime. They are an effective means of prodding the world toward nuclear abolition.



▲ Peace Parade to Protest Nuclear Testing

In September 1995, a meeting to protest and halt the resumption of nuclear testing by France in the South Pacific was held on the Island of Tahiti, French Polynesia. Legislators from many countries around the world attended the meeting, and local citizens held this parade.

(September 2, 1995) Courtesy: Kyodo News Service



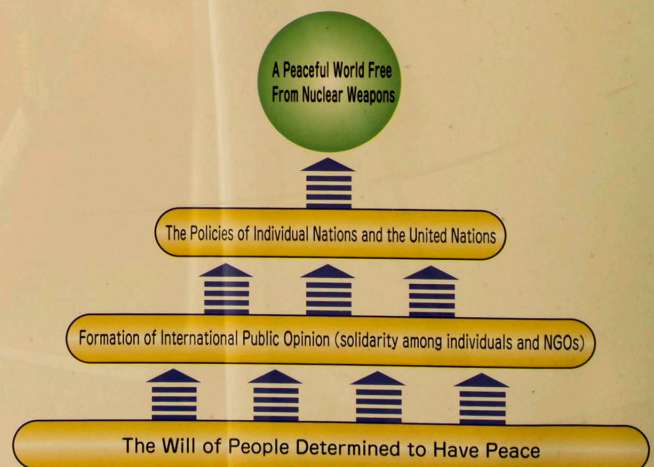
▲ Protest Demonstration against Nuclear Testing

Held in Semipalatinsk in the former Soviet Union in 1989, this was the first demonstration against the testing at the Semipalatinsk test site. That test site was closed in 1991.

(1989-Photo: Yuri Ivanovich Kuidin)

Efforts by Citizens

The abolition of nuclear weapons cannot be left to nations alone. International public opinion must be aroused to lead national policies toward disarmament. Individuals must be committed to peace and determined to build a society free from nuclear weapons. People engaged in a wide variety of related activities must strengthen their solidarity and work together with others around the world. The efficacy of such cooperation was amply demonstrated by the vital role played by non-governmental organizations (NGOs) in establishing the International Treaty Banning Anti-personnel Landmines and in promoting the World Court Project. The latter led to the advisory opinion from the International Court of Justice, that, "...the threat or use of nuclear weapons would generally be contrary to the rules of international law." Only the collective power of an aroused populace can move nations, move the United Nations, and lead to a peaceful world free from nuclear weapons.



HIROSHIMA & NAGASAKI

20th Century - Negative Heritage

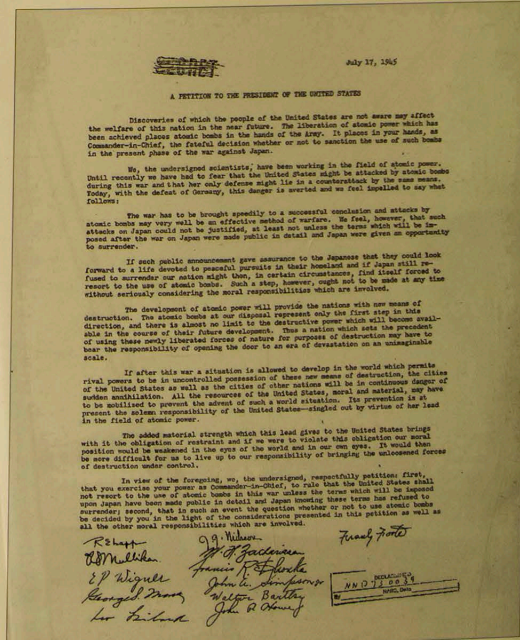


▲ **After the World's First Nuclear Test**
Dr. Oppenheimer (center, wearing a hat) examines the remains of a 30-m steel tower.
(July 16, 1945) Courtesy: PPS

At 05:29:45 on July 16, 1945, a blinding flash and an incredible wave of heat scorched the desert near Alamogordo, New Mexico. This was the first atomic explosion in human history.

Most of those involved in this test felt tremendous relief and shouted for joy. But already some feared that the success of this test would cover the Earth with a dark cloud. J. Robert Oppenheimer, who led the scientific effort that culminated in this test, reportedly quoted a line from a sacred Hindu sutra. "I am become Death. Destroyer of Worlds." Today, we have more than 20,000 nuclear weapons, most of which are incomparably more powerful than this first little atomic bomb.

The 20th century was one of amazing scientific and technological progress, but it was also a "century of war." We must make the 21st a "century of peace."



▲ A Petition from Scientists Opposed to Using the Atomic Bomb
Courtesy: National Archives

HIROSHIMA & NAGASAKI

Material Witnesses

Shigeru's Lunch Box

Shigeru Orimen was a first-year student at Second Hiroshima Prefectural Junior High School. Every day, he and his classmates were mobilized to clear away demolished buildings. On August 6 he left home in a hurry as usual, carrying the lunch his mother had made. It was a simple lunch, but one she had gone to great effort and expense to make.

Shigeru's worksite was 500 m from the hypocenter. After the bombing, his mother walked around the destroyed city searching for him. Early in the morning of August 9, on the bank of the Honkawa River, she found Shigeru's body doubled up, clutching this lunch box to his stomach. The lunch he never ate was burned black.



▲ Lunch Box Courtesy: City of Hiroshima



▲ Melted Rosary Courtesy: City of Nagasaki

Shinichi's Tricycle

Shinichi loved to ride his tricycle. On August 6, he was riding in front of his house 1.5 km from the hypocenter. When the A-bomb exploded, both Shinichi and his tricycle were badly burned.

His father felt the boy was too young to be buried in a lonely grave away from home, so he buried Shinichi with his tricycle in the backyard.

Forty years later, his father dug up Shinichi's remains and transferred them to the family grave. He donated this tricycle, Shinichi's favorite playmate, to the Peace Memorial Museum.



▲ Tricycle Courtesy: City of Hiroshima

Nuclear Waste as a Weapon

Depleted Uranium (DU) Ammunition

1945: U.S. Nuclear bombs hit Japan

1991-Present: U.S. Radiological munitions used in combat

DU, "Depleted" Uranium, is a chemically toxic radiological component of many munitions currently used in combat by the United States and other countries.

Enrichment of uranium for use in nuclear weapons and reactors produces various waste products, including DU. The U.S. military has made weapons with "depleted" uranium for over twenty-five years. These weapons have proliferated to over twenty other countries and are being sold on the world arms market by U.S. manufacturers and others. The most common DU weapons in the U.S. arsenal are 120mm shells fired by M1 tanks and 30mm shells fired by A-10 aircraft.

Bunker-buster bombs produced at the McAlester Army Ammunition Plant contain DU.

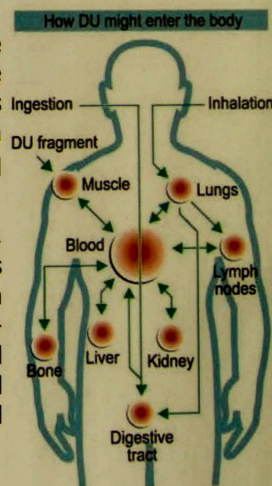
Evidence of environmental and human health damage caused by DU has steadily increased, despite Pentagon assertions that such impacts would not occur. The United Nations Human Rights Commission Sub-Commission on Prevention of Discrimination and Protection of Minorities considers DU munitions to be "weapons of mass destruction or with indiscriminate effect" and incompatible with international humanitarian law. The half-life of DU (the time it takes for half to decay and turn into another substance) is 4.5 billion years. DU remains in the environment for many years after use in combat or testing and can reach humans through a variety of pathways, including soil, air, drinking water, and food.

The term "depleted" uranium does not mean that DU is harmless. DU emits about 60%-85% as much radiation as naturally occurring uranium that has been processed and concentrated, and has about the same chemical toxicity as natural uranium.

In the impact of battle, DU munitions ignite and burn, releasing tiny particles of radioactive gas which can enter the human body.

DU weapons were first used in conflict by the U.S. during the first Gulf War in 1991. Over 350 tons of DU were left in the soil, air, and water of Iraq and Kuwait at that time. DU was also used in Bosnia (1994-1995), Kosovo (1999), Afghanistan (2001-2003) and continues to be used in the current Iraq conflict.

When a DU shell hits a hard target such as a tank or building, it burns and produces a tiny ceramic dust. These particles remain in the environment for many years, travel for miles on air currents, re-suspend into the air when disturbed, and migrate into soil and groundwater. DU particles that are ingested or inhaled can lodge in the lungs, bones, kidneys, and reproductive organs causing damage through radiation and toxic properties.



Research over the past decade has produced increasing evidence that DU can harm humans.

A few examples of this research:

- DU has been found in the urine of Gulf War veterans and Iraqi civilians eight years after exposure.
- A recent U.S. military study found that DU damages the human chromosomes.
- At the former Jefferson Proving Ground in Indiana, DU has entered the food chain and been found in deer, clams, and fish.
- Investigators found widespread DU contamination in soil, air, and lichen in Serbia and Montenegro over two years after the conflict there.
- DU remains in Bosnia and Herzegovina over seven years after its use. Particles were found suspended in the air inside buildings and in drinking water.



Effects of DU on humans include:

Leukemia
Birth Defects
Multiple Cancers
Kidney Damage
Immune System Damage
Nervous System Damage



"People have always assumed low doses are not much of a problem, but they can cause more damage than people think."

Alexandra Miller,
U.S. Armed Forces Radiobiology

"Veterans and civilians in these wars WERE exposed to DU, and this inhaled DU represents a seriously enhanced risk of damaged immune systems and fatal cancers."

Rosalie Bertell, Ph.D., GNSH

Hiroshima & Nagasaki: Catholic Voices

In August 1945, the Japanese cities of Hiroshima and Nagasaki each were completely destroyed by a single nuclear weapon, bringing about the loss of about 200,000 precious lives.

"The worst evil the world has witnessed since the crucifixion of Jesus was the dropping of the atomic bomb on Hiroshima."

Archbishop Fulton J. Sheen



They shall beat their
swords into plowshares
and their spears into
pruning hooks; one nation
shall not raise the sword
against another, nor shall
they train for war again.

Isaiah 2:4

"Do to others what-
ever you would have
them do to you"
Jesus Christ, Matt

From the Catechism of the Catholic Church

"Every act of war directed to the indiscriminate destruction of whole cities or vast areas with their inhabitants is a crime against God and human beings, which merits firm and unequivocal condemnation." A danger of modern warfare is that it provides the opportunity to those who possess modern scientific weapons – especially atomic, biological, or chemical weapons – to commit such crimes"

CCC #2314, quoting *Gaudium et Spes*, #80

"The evil of war has plagued the world for as long as I can remember. The technological 'advancement' of weaponry devised by man continues to betray the Gospel of Jesus Christ and weakens our witness as peacemakers. Let us pray for a conversion of hearts."

Bishop Edward Slattery, June 2005

"Blessed are the peacemakers, for
they shall be called children of God"
Jesus Christ, Matt 5:9

"... given the new weapons
that make possible destruc-
tions that go beyond the com-
batant groups, today we should
be asking ourselves if it is still
licit to admit the very existence
of a 'just war.'"

Cardinal Joseph Ratzinger
Pope Benedict XVI, May

"If we have no peace, it is because we have
forgotten that we belong to each other."
"War is the killing of human beings. Who can
even think that it could ever be "just"?"
"Peace begins with a smile."

Mother Theresa

"The true and solid peace of nations consists not
in equality of arms, but in mutual trust alone."

Pope John XXIII

"But I say to you, love your enemies, and
pray for those who persecute you"
Jesus Christ, Matt 5:44

"To remember the past is to
commit oneself to the future...
To remember Hiroshima is to
abhor nuclear war. To remember
Hiroshima is to commit oneself
to peace... Let us promise our
fellow human beings that we will
work untiringly for disarmament
and the banishing of all nuclear
weapons. ... Our future on this
planet, exposed as it is to
nuclear annihilation, depends
upon a single factor: humanity
must make a moral about-face"

Pope John Paul II
Hiroshima, 1981

Vatican Statement on Nuclear Weapons

On October 29, 1997, the Vatican's newspaper "L'Osservatore Romano" published the following statement given by Archbishop Renato Martino, the Holy See's Permanent Observer at the United Nations on October 15, 1997

As the world approaches the millennium, many people and organizations are already casting their vision towards the opening years of the 21st century. Will the next century be a time of peace, the fruit of the blossoming of human intelligence and human love? Or will the world sink once again into the morass of wars as we have witnessed in the death-filled 20th century? The essential questions of war and peace preoccupy humanity and deserve the utmost introspection of this committee.

We can draw a measure of hope that peace will be our accomplishment in the years ahead because of the achievements of the past few years: the ending of the Cold War, reductions of military forces in Europe, the Chemical Weapons Treaty, reductions of nuclear weapons by the two foremost nuclear weapons States, the indefinite extension of the Non-Proliferation Treaty, the Comprehensive Test Ban Treaty, and the adoption of the convention on anti-personnel land-mines. These achievements are steps that have moved the world closer to peace and the First Committee has played a role in this success.

But can we say that the course to peace in its entirety is clear? Unfortunately, we cannot. Every day conflict and violence still produce victims. Genocide, the slaughter of innocents, and attacks on vulnerable populations continue to scar the landscape. The arms trade, particularly of conventional weapons, only adds to the bloodshed in many warring countries. Indeed, in recent conflicts, more people are killed by short-range weapons than by weapons of mass destruction. The tragedy of this trend is that more human beings, including children, are forced to wage war. In addition, these wars are often prolonged by short-ranged weapons. Most developing countries where conflict situations exist are abundantly supplied with such weapons. In spite of this fact, weapons of mass destruction are still produced in great quantity. Nuclear weapons, aptly described as "the ultimate evil" are still possessed by the most powerful States which refuse to let them go.

We Cannot Simultaneously Pay for War and Peace

These searing facts of militarism remind us of how far the world still has to go to claim a universal peace. The world is paying a high price for the "culture of war" that has characterized the 20th century. Even now, nearly a decade after the end of the Cold War, the world's governments spend more than \$800 billion a year to sport military forces of more than 27 million soldiers. While this is a decline in spending since the Cold War high in 1987, most of the decline has come from the sharp drop in spending by the former Warsaw Pact countries. Despite the end of the Cold War, developed nations, other than the East European countries, spend only 10% less than they did in 1987. Military expenditures of the NATO countries are now more than 10 times the expenditures of the former Warsaw Pact countries. Not only are the developed countries big military spenders, they are also responsible for 90% of the \$22 billion annual arms trade. The dangerous global proliferation of arms and weapons technology has contributed to inciting and prolonging armed conflicts raging in different locations around the world.

For their part, the developing countries currently spend \$221 billion on armed forces. This spending is a considerable drain on these nations' already limited resources: new weapons procurement and larger armies mean less funds to invest in health, education, economic development and other urgent social needs of large and vulnerable populations. Some 1.3 billion people are so poor that they cannot meet their basic needs for food and shelter. Sixty per cent of humanity lives on less than \$2 a day. Despite some remarkable success in human development in some fast-growing economies, more than 100 countries are worse off today than they were 15 years ago. Each year between 13 and 18 million people, most of them children, die from hunger and poverty-related causes.

Sustainable development needs huge amounts of investment in scientific research, technological development, education and training, infrastructure development and the transfer of technology. Investment in these structural advances is urgently needed to stop carbon dioxide poisoning of the atmosphere and the depletion of the earth's biological resources such as the forests, wetlands and animal species now under attack. But the goals for sustainable development set out in the 1992 Earth Summit's major document Agenda 21, are blocked by political inertia, which countenances continued high military spending.

It is clear, as the Director-General of UNESCO put it, that "we cannot simultaneously pay the price of war and the price of peace". Budgetary priorities need to be realigned in order to direct financial resources to enhancing life, not producing death. A transformation of political attitudes is needed to build a "culture of peace". A new political attitude would say no to investment in arms and destruction and yes to investment in the construction of peace. The relationship between disarmament and development, given short shrift by governments since the international conference of 1987, must be emphasized anew. In that relationship, a process of disarmament, providing security and progressively lower levels of armaments, could allow more resources to be devoted to development; correspondingly, the development process enhances security and can promote disarmament.

Nuclear Arms are Incompatible with the Peace We Seek

Such an approach to human security by governments would lead to the fulfillment of the right to peace, which every person in every culture can claim. No lesser goal than the right to live in peace will suffice for the new millennium.

The international community, when awakened, has shown that it can indeed move to strengthen human security. The work fostered by the Ottawa Process in producing a treaty banning the production, export and use of anti-personnel land-mines reflects the strengths of compassion and political action. The Holy See commends this initiative and urges universal support for the treaty. Pope John Paul II has appealed for the "definitive cessation" of the manufacture and use of such "insidious arms" which strike cruelly and indiscriminately at civilian populations. Signing the new treaty will not be enough, however. Equal attention should be given to the detection and removal of the 100 million deployed land-mines that continue to kill and maim 28,000 innocents every year. More resources should be devoted to demining efforts.

If biological weapons, chemical weapons and now land-mines can be done away with, so too can nuclear weapons. No weapon so threatens the longed-for peace of the 21st century as the nuclear. Let not the immensity of this task dissuade us from the efforts needed to free humanity from such a scourge. With the valuable admonition offered in the Advisory Opinion of the International Court of Justice, the international community can see how the legal and moral arguments against nuclear weapons intertwine with the strategic: since nuclear weapons can destroy all life on the planet, they imperil all that humanity has ever stood for and indeed humanity itself. During the acrimonious years of the Cold War with the emphasis on the military doctrine of nuclear deterrence as a constant justification for the nuclear arms build-up the international community felt powerless to stop the relentless build-up of nuclear weapons. But now, in the post-Cold War era characterized by new partnerships, the international community cannot shield itself from the assault on life itself that nuclear weapons represent.

The work that this Committee has done in calling for negotiations leading to a Nuclear Weapons Convention must be increased. Those nuclear weapons States resisting such negotiations must be challenged, for, in clinging to their outmoded rationales for nuclear deterrence, they are denying the most ardent aspirations of humanity as well as the opinion of the highest legal authority in the world. The gravest consequences for mankind lie ahead if the world is to be ruled by the militarism represented by nuclear weapons rather than the humanitarian law espoused by the International Court of Justice.

Nuclear weapons are incompatible with the peace we seek for the 21st century. They cannot be justified. They deserve condemnation. The preservation of the Non Proliferation Treaty demands an unequivocal commitment to their abolition.

The Holy See has previously stated in this Committee: "The world must move to the abolition of nuclear weapons through a universal, non-discriminatory ban with intensive inspection by a universal authority". Today we repeat those words, conscious that that there is a gathering momentum of world opinion in support of the complete elimination of nuclear weapons. This is a moral challenge, a legal challenge and a political challenge. That multiple based challenge must be met by the application of our humanity.

"Nuclear weapons cannot be justified and deserve condemnation: grave consequences lie ahead if the world is ruled by the militarism of nuclear arms"

"A transformation of political attitudes is needed to build a "culture of peace". A new political attitude would say no to investment in arms and destruction and yes to investment in the construction of peace."

"No weapon so threatens the longed-for peace of the 21st century as the nuclear. Let not the immensity of this task dissuade us from the efforts needed to free humanity from such a scourge."

What Can I Do?

Nuclear weapons, and all questions of about any weapons of mass destruction, war or terrorism can seem like intractable problems that any one individual could not possibly solve. But there are some steps we can all take to make a difference. Hope lives in the conviction that change is possible and individuals can bring it about. On this panel are three areas where each of us, as individuals, can do something to make a difference and stop nuclear weapons, and by extension, work towards peace and nonviolence.

Imagine...

If we took a few moments each day to reflect and pray for peace in our hearts, our community, our nation and the world.

Before God the Creator and the Sanctifying Spirit, I vow to carry out in my life the love and example of Jesus...

- *For one day, be conscious of how you use the words us and them.*
- *Inform yourself about world hunger. Today.*
- *Give a sincere compliment to someone you do not find easy to like.*
- *Loosen up! Today give warmer handshakes, gentler kisses, more caring hugs. Touch others with your peace.*

Prayer

Prayer can make all the difference. If everyone on Earth would pray for peace, it would happen. Below are some prayers from Pax Christi you are welcome to take home to help remind you to pray for peace and nonviolence every day.

Pax Christi Vow of Nonviolence

The nuclear age, and our new age of terrorism, represent a new form of violence requiring us to evaluate war with an entirely new attitude. Many Christians, having made this evaluation, seek to make a total break with violence. Pax Christi is inviting Christians who have recognized this to take a Vow of Nonviolence. Such a gesture signifies an explicit rejection of violence and a turning toward unconditional love. The brochure explains the vow, and the reasons behind it.

Action

Besides prayer and nonviolence, there are many actions each of us as individuals can take to make a difference and spread the message of peace to others. Please take the brochure "Just For Today" which contains "An action a week for peace," 52 suggestions for actions individuals can take to bring peace to the world. Please also take the "Love Your Enemies" brochure, which also lists 52 ways to love enemies, making them a friend. These are simple, yet far-reaching suggestions that can be practices each week during the year. These are the ways of the Peace of Christ.